

Older Taxpayers' Response to Taxation of Social Security Benefits

Leonard Burman, Syracuse University and Tax Policy Center; Norma B. Coe, University of Washington and NBER; Kevin Pierce, Internal Revenue Service; and Liu Tian, Syracuse University¹

I. Introduction

Social Security benefits are taxed under a complex regime that raises marginal effective tax rates by up to 85 percent. Over a range of Modified Adjusted Gross Income (MAGI),² affected taxpayers must include in their taxable income \$0.50 of Social Security benefit for every additional dollar of other taxable income;³ at higher income levels, \$0.85 of benefits must be added, until 85 percent of Social Security benefits are included. In these income ranges, an additional dollar of other taxable income increases total taxable income by \$1.50 or \$1.85. At the highest income levels, this can convert a modest 25 percent statutory tax rate into a 46.25 percent marginal rate. This is much higher than the top income tax bracket,⁴ but it applies to older households with relatively modest incomes.

The tax on benefits is in some ways similar to the Social Security earnings test (SSET), which reduces Social Security benefits by 50 cents for every dollar earned above an exempt amount for those younger than the Full Retirement Age (FRA, currently 66).⁵ However, the taxation of benefits applies at all ages while the SSET applies only to Social Security recipients who claim benefits before reaching FRA. Moreover, unlike the benefit tax, the SSET is not a pure tax since the reduced current benefits translate into higher benefits once FRA is reached. In contrast, the tax on benefits has no actuarial adjustment.

While the tax on benefits could have significant effects on behavior, it has been thus far largely ignored in the literature. This is a potentially important oversight. If taxpayers understand the rules, one would expect them to be even more sensitive to this work disincentive than to the SSET, which most research has found to significantly affect labor supply. Moreover, this tax not only affects earnings but also nonlabor income, so it can influence nonlabor decisions, such as when to realize capital gains. Early retirees may be subject to both the SSET and Social Security benefit taxation, so the effective combined work disincentive may be quite large. Further, if the tax is inefficient, reform options might exist that could bolster the trust fund, extend older people's attachment to the labor force, significantly reduce tax compliance costs for older workers, and raise overall economic welfare.

This paper investigates older taxpayers' response to the taxation of Social Security benefits by looking for evidence of bunching at the kink points created by the taxation of benefits. In theory, some individuals with incomes above the taxation thresholds have an incentive to reduce their incomes to the threshold—by working less, delaying realization of capital gains, or using other techniques to reduce reported income. We test this hypothesis using a panel of data from individual income tax and information returns.

¹ Some of the research reported herein was pursuant to a grant from the U.S. Social Security Administration (SSA) funded as part of the Retirement Research Consortium (RRC) through the Boston College Center for Retirement Research (CRR). The findings and conclusions expressed are solely those of the authors and do not represent the views of the SSA, any agency of the Federal Government, the RRC, the Urban Institute, Syracuse University or Boston College. The authors would like to thank: Zhenya Karamcheva for programming assistance; Rachel Johnson for supplying estimates from the IRS public-use file; Dan Feenberg for help with TAXSIM; Jan Ondrich, John Sabelhaus, seminar participants at the Center for Policy Research at the Maxwell School of Syracuse University and at the IRS—Tax Policy Center 2013 Joint Research Conference for helpful comments.

² MAGI includes most of the income and adjustments reflected in adjusted gross income (AGI), but it includes one-half of Social Security benefits, rather than the taxable portion. It also includes tax-exempt interest.

³ That is, any taxable income included in MAGI other than Social Security benefits.

⁴ In 2013, the top income tax bracket is 39.6 percent and applies to households with taxable incomes over \$450,000 (married) and \$400,000 (single).

⁵ A 33-percent reduction and a higher exemption apply to workers in the year in which they reach FRA.

We find no evidence of bunching at or around the thresholds for the population as a whole, and only a very small response for single self-employed taxpayers who have previously been found to be more sensitive to changes in tax rates (Saez 2010; Chetty *et al.* 2011). This implies that this complicated tax does not lead to any important behavioral response and therefore imposes little or no deadweight loss.

The paper continues as follows. Section II describes the taxation on Social Security Benefits. Section III surveys the relevant literature. Section IV develops a simple theoretical model. Section V discusses the data and Section VI presents the empirical results. Section VII summarizes our findings and discusses planned future work.

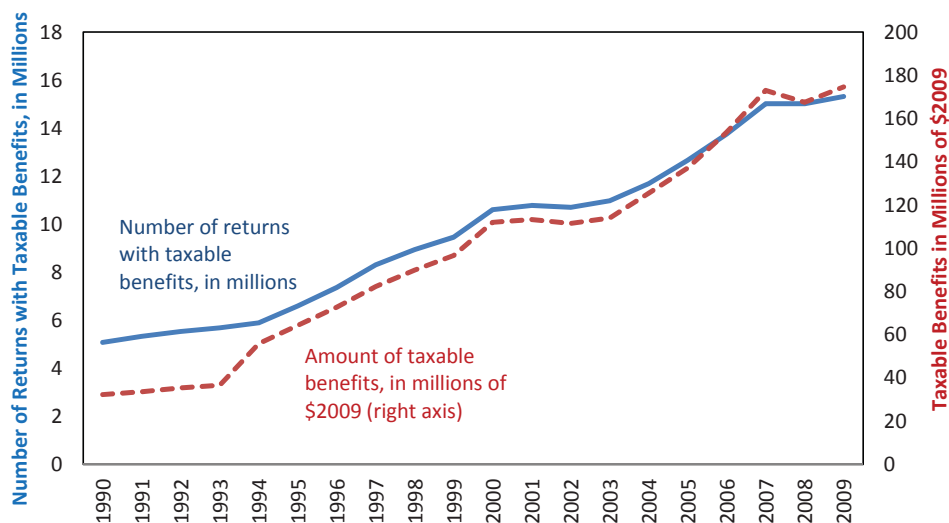
II. Taxation of Social Security Benefits

Prior to 1983, Social Security benefits were not subject to income tax. In 1983, the Greenspan Commission recommended that a portion of benefits be subject to income taxation, with the resulting additional tax revenue allocated to the OASDI (Old Age Survivors and Disability Insurance, or Social Security) trust fund. Legislation enacted in 1993 increased the amount of benefits included in taxable income for higher-income taxpayers, with the additional revenues allocated to the HI (Medicare) trust fund.

The formula for taxation is complex. OASDI benefits become subject to income taxation when MAGI exceeds \$25,000 for single (\$32,000 for married) taxpayers. Above those thresholds, the taxable portion of benefits phases in starting at a 50-percent rate. Fifty cents of benefits are included in taxable income for every additional dollar of MAGI. After a second threshold (\$34,000 for singles and \$44,000 for married households), the phase-in rate increases to 85 percent. The phase-in continues until 85 percent of Social Security benefits are included in taxable income.

The thresholds for taxation have been fixed in nominal terms since their inception. Since the thresholds are not adjusted for inflation, they decrease in real terms over time, unlike Federal income tax brackets and many other income tax parameters. As a result, taxation of Social Security affects an increasing proportion of beneficiaries over time, pushing people into higher tax brackets. The number of returns with taxable Social Security benefits nearly tripled—from 5.3 million to 15.3 million—between 1990 and 2009 (see Figure 1). The dollar amount of Social Security benefits subject to taxation increased even more, from \$33.6 million in 1990 to \$174.6 million in 2009, in part because of the 1993 legislation and partly because of increases in nominal income of the elderly.

FIGURE 1. Number of Returns with Taxable Social Security Benefits, and in Millions of \$2009, in Millions, 1990–2009



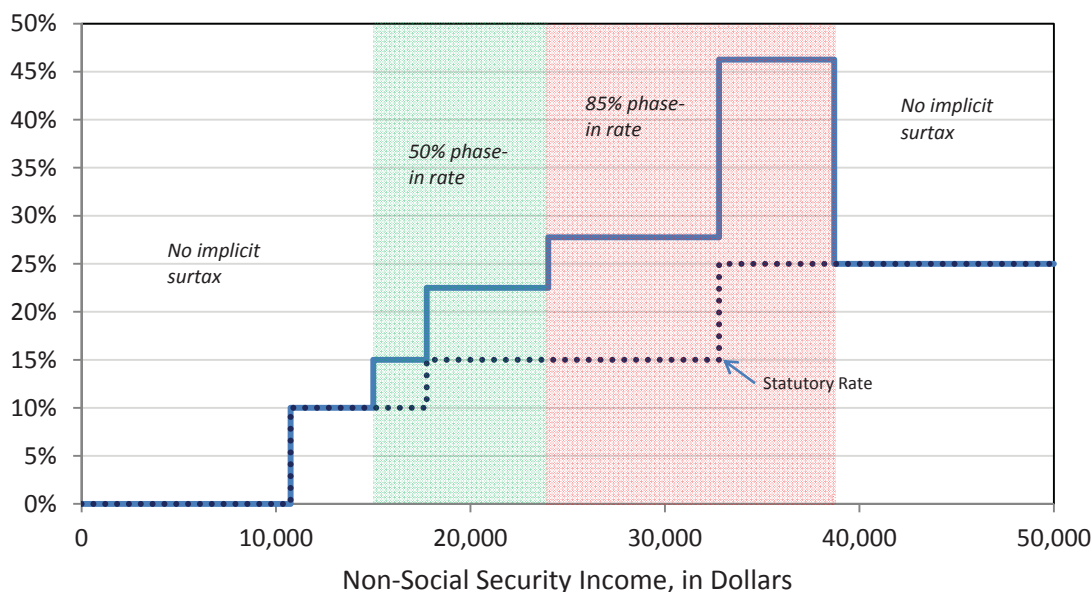
Source: IRS, "Selected Income and Tax Items for Selected Years (in Current and Constant Dollars)," http://www.irs.gov/file_source/pub/irs-soi/09intba.xls.

Although the levy may seem to be a tax on Social Security benefits, it is actually a large implicit surtax on all income included in MAGI.⁶ Taxpayers with low Social Security benefits or modest amounts of other income have MAGI below the threshold for taxation and are not affected. However, as either benefits or other income increase, effective marginal tax rates may increase quite dramatically. For example, a single person with \$15,000 of non-Social Security income and \$19,900 of Social Security benefits has none of her Social Security included in taxable income; her marginal income tax rate equals the statutory rate of 10 percent. If either her Social Security benefit or income increases by \$100, her marginal tax rate would increase to 15 percent.

The taxation of Social Security benefits increases *effective* marginal tax rates by 50 percent in the first phase-in range and by 85 percent in the second. This is because an additional dollar of AGI (earnings or non-labor income) increases MAGI by \$1.50 in the 50-percent phase-in range and by \$1.85 in the higher interval, until 85 percent of Social Security benefits are included in taxable income. Figure 2 illustrates how the taxation of benefits distorts effective tax rates for a taxpayer with \$20,000 in Social Security benefits in 2010. The effective tax rate schedule is marked by significant discontinuities—much larger than under the regular income tax. Over the phase-in range of income, a taxpayer would ordinarily face three marginal rates—10, 15, and 25 percent. However, because of the partial inclusion of Social Security benefits, three additional effective rates are created—22.5, 27.75, and 46.25 percent. The top effective rate, which applies to seniors with relatively modest incomes (\$33,000–\$39,000 in Figure 2), is actually higher than the top statutory income tax rate of 35 percent that applied to households with taxable income over \$373,650 in 2010.

As shown in Figure 2, taxpayers with income just beyond the phase-in region face a marginal rate of 25 percent, which is more than 20 percentage points lower than those with lower incomes. Taxation of benefits reduces their after-tax income, but there is no implicit surtax or marginal disincentive to work or earn other income.

FIGURE 2. Effective Marginal Tax Rates for Single Non-Itemizer, Age 66 or Older, With \$20,000 of Social Security, by Non-Social Security Income, 2010



⁶ Note that the tax potentially applies to taxpayers collecting disability and survivor benefits under the OASDI program, but our analysis will focus on Social Security beneficiaries.

The implicit tax affects not only earnings but also nonlabor income. Burman (1999) points out that the taxation of Social Security can have disproportionate effects on effective long-term capital gains tax rates; it can add up to 21.25 percentage points (85 percent of 25 percent) to the statutory capital gains tax rate of 15 percent that applies to taxpayers in that income range.

If there is a behavioral response to the taxation of benefits, the substantial kinks in the tax schedule could create clustering of households at the kink points, and potentially discourage labor supply at both the extensive and intensive margins. Although taxpayers with very low and very high nonlabor income are likely to be unaffected, taxpayers whose earnings would be subject to partial taxation might be less likely to work than other similar taxpayers. Secondary earners may face especially strong disincentives if the primary earner's income puts the second earner in the phase-in range.

The tax treatment of benefits could also affect decisions about when to begin claiming Social Security. The steeply rising marginal tax rate schedule creates an incentive for many people to claim benefits early, getting a reduced benefit over more years. Individuals born after 1942 can reduce their annual benefit by 25 percent or more by claiming at age 62 rather than the full retirement age and fully or partially avoid taxation of Social Security benefits. As a result, the adjustment for delayed retirement may no longer be actuarially fair when taxes are considered. On the other hand, some taxpayers may have an incentive to delay claiming Social Security benefits. If a worker reaches the full retirement age and expects to keep working for a few more years after which his non-Social Security income would drop significantly, he may elect to delay claiming Social Security benefits if the future drop in income means that much less of his benefits would be subject to tax. In this case, the after-tax value of delaying retirement is better than actuarially fair, even if before tax, the trade-off is neutral.⁷

Finally, it should be noted that the very complicated taxation of Social Security benefits might affect behavior much differently than predicted by a pure optimizing model. It is possible that people do not understand how the tax affects marginal tax rates, the incentives on labor supply, or the timing of benefits. If people ignore these incentives, then the tax may be a type of optimal tax—raising revenue with little or no effect on behavior. On the other hand, taxpayers may overreact to misunderstood incentives—magnifying the economic distortion.

III. Previous Literature

While Social Security has been extensively studied, very little attention has been paid to the taxation of benefits. The closest analogue is the SSET, which reduces Social Security benefits for individuals who have not reached the full retirement age and whose earnings exceed a threshold.⁸ The SSET is different in several key ways. For one thing, it is much easier for individuals to determine if they are affected since it depends only on individual earnings and age. In another sense, though, it is more complicated because there is an actuarial adjustment. The reduced Social Security benefits translate into higher future benefits (assuming the individual lives long enough to claim them) making labor supply decisions a function not only of the tax rate, but life expectancy and discount rates. Evidence, however, suggests that older workers view the SSET as a tax with little or no awareness of the actuarial adjustment. Several studies find evidence that the SSET discouraged work among older Americans.⁹ Also, eliminating the earnings test for beneficiaries who had reached the full retirement age increased the likelihood that workers would claim Social Security benefits before age 70 (Song and Manchester 2007; Friedberg and Webb 2009).

The Social Security benefit formula itself impacts the implicit taxes on work. The formula is progressive, so those with high earnings get much less in additional benefits per dollar of payroll tax than those with lower

⁷ Coile et al. (2002) model the timing of claiming Social Security. Even ignoring the taxation of Social Security benefits as they do, the decision is very complicated. They present nonlinear simulations for the case of a single earner, leaving the more complex case of dual earners to later research. They find that men generally claim benefits too early compared with the optimal choice.

⁸ Prior to 2001, there was also a SSET at a reduced rate for individuals between the full retirement age and 69.

⁹ Friedberg (2000), Gustman and Steinmeier (2005), Benitez-Silva and Heiland (2007), Song and Manchester (2007), Heider and Loughran (2008), Engelhardt and Kumar (2009), and Friedberg and Webb (2009). Burtless and Moffitt (1985), Gruber and Orszag (2003), Gustman and Steinmeier (1985) and Song and Manchester (2007) find small effects.

incomes. For some workers, including those who expect to have fewer than 40 covered quarters of work—and are thus ineligible for benefits—or who will receive benefits based on their spouse's earnings, the payroll tax is a pure tax. Liebman, Luttmer, and Seif (2009) find labor supply and retirement decisions of older workers to be sensitive to the variation in the effective tax rate on earnings. Of particular relevance, this research suggests a surprisingly sophisticated understanding of complex rules. A survey by Leibman and Luttmer (2012) finds a fair amount of knowledge of some Social Security provisions and relatively less about others (including the earnings test).

We know of only three previous studies that have examined the taxation of Social Security benefits. Liebman and Goodman (2008) look at the taxation of benefits as a form of means-testing and conclude that it is sub-optimal. They do not explicitly consider the effect of taxation of benefits on economic incentives, but, citing behavioral economics research, they question whether and how individuals might respond to the tax incentives:

While this analysis shows that the taxation of Social Security benefits raises marginal tax rates for a sizable minority of Social Security beneficiaries, the complexity of these provisions raises questions about how future and current beneficiaries perceive these incentives and whether their behavior responds to them. (Liebman and Goodman 2008, pp. 17–18)

One possibility is that, overwhelmed by the complexity of the incentives, taxpayers might simply ignore the tax. Alternatively, they might apply a simple rule of thumb—e.g., on average, 4 percent of Social Security benefits are included in income—that could similarly result in little distortion. Or, Liebman and Goodman (2008) conjecture, taxpayers may misperceive the tax as applying to 85 percent of Social Security benefits. This could create a quite large income effect—even for taxpayers with incomes so low that little or none of their benefits are taxable—although presumably it would have no effect on the perceived after-tax return to working or earning other income.

Page and Conway (2011) measure the income effect of taxation of benefits directly by exploiting the natural experiment of introduction of the taxation in 1983, using difference-in-differences methodology with data from the Current Population Survey (CPS). They estimate that a 20-percent reduction in after-tax Social Security benefits boosts labor force participation among high-income elderly by 2 to 5 percentage points. They argue that taxation of Social Security benefits increases labor supply through the income effect: people above the threshold where 85 percent of benefits are subject to tax, even before including OASDI benefits, have less after-tax income, which increases hours of work. They do not attempt to measure the marginal effect of reduced after-tax income within the phase-in range.

Burman, Coe, and Tian (2011) attempt to measure directly the effect of taxing Social Security benefits on labor force participation and earnings using data from the Health and Retirement Study (HRS). They do not find evidence that taxation of benefits significantly affects labor market behavior, but they raise the major caveat that their estimates may be unreliable because of errors in variables and small sample size. Survey estimates of tax information are notoriously imprecise and the HRS lacks key components of taxable income, such as capital gains.

IV. Effects of Taxing Social Security Benefits

If taxpayers understand how the taxation of Social Security benefits affects their budget, then we should observe bunching of MAGI near the thresholds. Taxing Social Security benefits generates convex kinks in the budget constraint at the thresholds for the 50-percent and 85-percent phase-in rates (corresponding to MAGI of \$25,000 and \$34,000 for single filers). In a simple model of utility maximization, taxpayers with incomes only slightly greater than the threshold will reduce their incomes to the threshold.

To see this, consider a simplified example in which there is a flat-rate income tax and only one rate of taxation of Social Security (as was the case between 1983 and 1993), which increases tax rates by 50 percent. The optimal level of MAGI will maximize utility subject to the kinked budget constraint (Figure 3). Assuming that individuals are averse to work and other activities that increase MAGI and that they value consumption (after-tax income), higher utility corresponds to indifference curves that move in a northwesterly direction on the figure.

Figure 3 illustrates three categories of taxpayers who will be affected differently by the introduction of taxation of benefits. In Panel A, MAGI in the absence of taxation of Social Security would fall below the threshold. That individual is unaffected by benefit taxation. Panel B shows a taxpayer who before the tax change would have MAGI of $z^* + \Delta z^*$, but after introduction of the taxation regime chooses MAGI of z^* . Saez (2010) shows that in the case where individuals have identical preferences but differ in their ability to earn income (e.g., their hourly wage rate differs), all individuals with initial incomes between z^* and $z^* + \Delta z^*$ would bunch at the kink. Taxpayers who initially have higher incomes than $z^* + \Delta z^*$ may also reduce their incomes, but their new incomes would be tangent to the new budget constraint to the right of z^* . Finally, Panel C depicts high-income taxpayers for whom the tax produces only an income effect.

With perfect information and complete ability to choose MAGI, this framework would produce bunching at the threshold z^* (see Figure 4). The kink has no effect on taxpayers with initial incomes below z^* , but it produces a leftward shift in the distribution of income among those with initial incomes above z^* . Saez (2010) extends this analysis to allow for adjustment frictions (e.g., people can only imperfectly adjust income or they have imperfect information about the location of the threshold) and shows that under certain simplifying assumptions, the amount of bunching near z^* provides a measure of the compensated elasticity of taxable income. If individuals are very sensitive to taxation (high elasticity), then there will be an unusually large mass of tax returns near the threshold.

There are many contexts in which such bunching may be observed. Saez (2010) shows that self-employed individuals' incomes tended to bunch at the level where the earned income tax credit starts to phase out. Wage earners showed no such response, which is consistent with the notion that the self-employed have more control over hours worked and taxable earnings, and self-employment income is not subject to third-party information reporting, making it easier to misreport on a tax return. Friedberg (2000), Song and Manchester (2007), Engelhardt and Kumar (2009), etc. observe that older workers clustered to the left of the SSET exempt threshold. Chetty, et al. (2011) examine bunching around large jumps in tax brackets in Denmark to measure elasticity of taxable income in the context of search costs.

Our hypothesis is that if taxpayers are aware of the incentives created by the taxation of Social Security benefits, there should be a bump in the empirical distribution of tax returns near the two thresholds for taxation. We would expect the bump to be more pronounced for those with income from self-employment.

V. Data

To look for evidence of bunching, we use administrative data—the 1999 IRS Statistics of Income (SOI) Individual Edited Panel, which is a longitudinal dataset drawn from individual income tax returns and information returns.¹⁰ The data comprise a panel of individuals from Tax Years 1999 to 2008. The advantage of these data is that they provide an accurate measure of what is reported to the IRS on income tax returns—and thus tax status. They also allow us to study the behavior of self-employed individuals; those who previous research suggests would be the most responsive. The disadvantage is that the dataset includes little demographic information, which precludes structural modeling of the response to taxation.

The panel has been augmented by matching all of the primary and secondary SSNs within the panel to the SOI-processed information returns databases for Forms W-2 (information on wages and withholdings), Forms 5498 (contributions to retirement accounts), Forms 1099-SSA (Social Security benefits), and Forms 1099-R (income from retirement accounts and pensions). Separate observations are created for primary and secondary taxpayers who were in the sample in 1999. The panel is a stratified random sample, which oversamples high-income returns. Sampling weights allow estimation of population aggregates.

We use information from several tax forms for the analysis. Our measure of gross Social Security benefit comes from Form 1099-SSA, an information return the Social Security Administration produces to report benefits for each recipient. Tax-exempt interest and the amount of Social Security benefits that are included

¹⁰ For more information on the SOI Individual Income Tax Return Panel, see Weber and Bryant (2005). Pierce (2011) documents an extended version of the panel (through 2008).

in AGI come from Form 1040. Our dataset also includes reported self-employment income from Form 1040 Schedule SE.

FIGURE 3. Effect of Introducing a Kink in the Budget Constraint

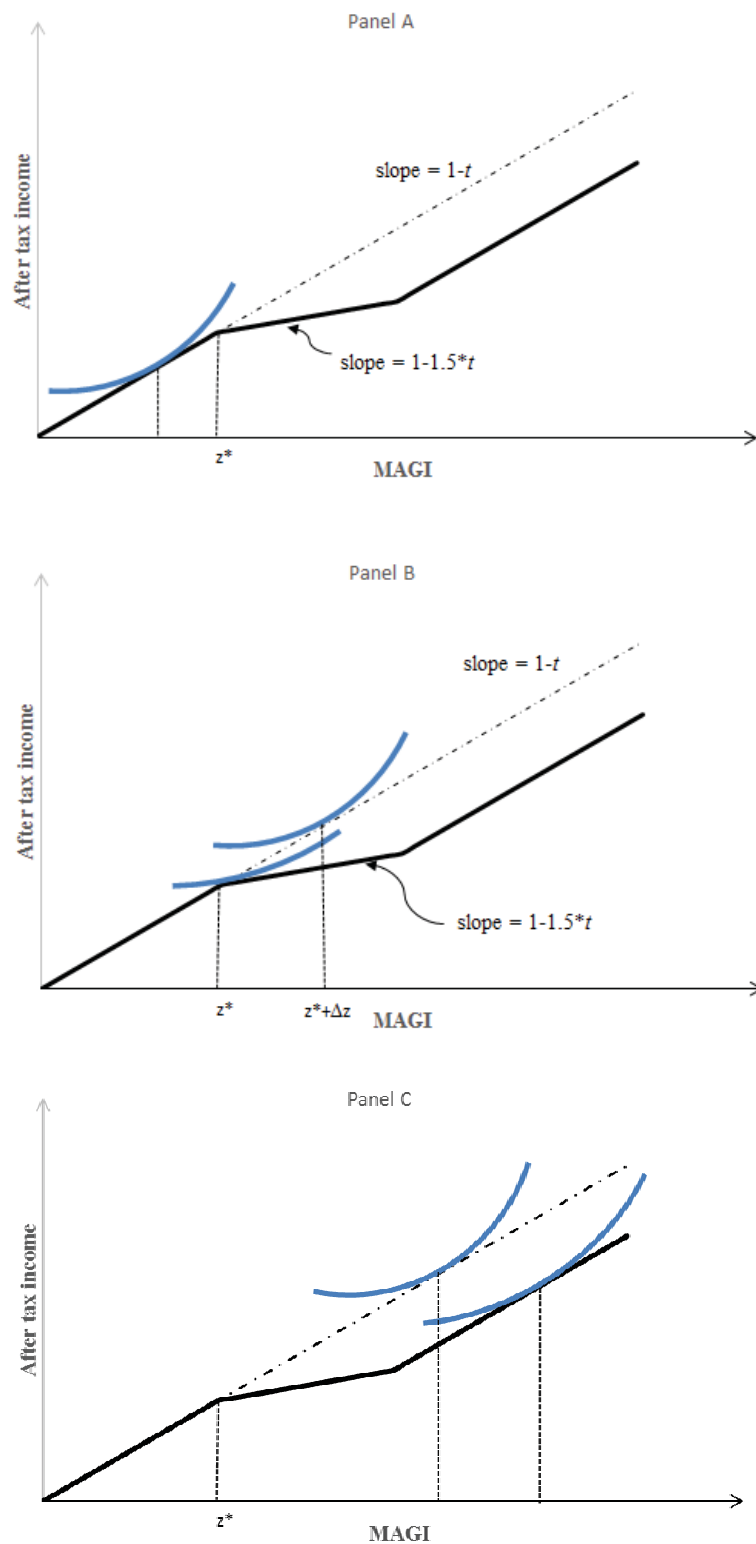
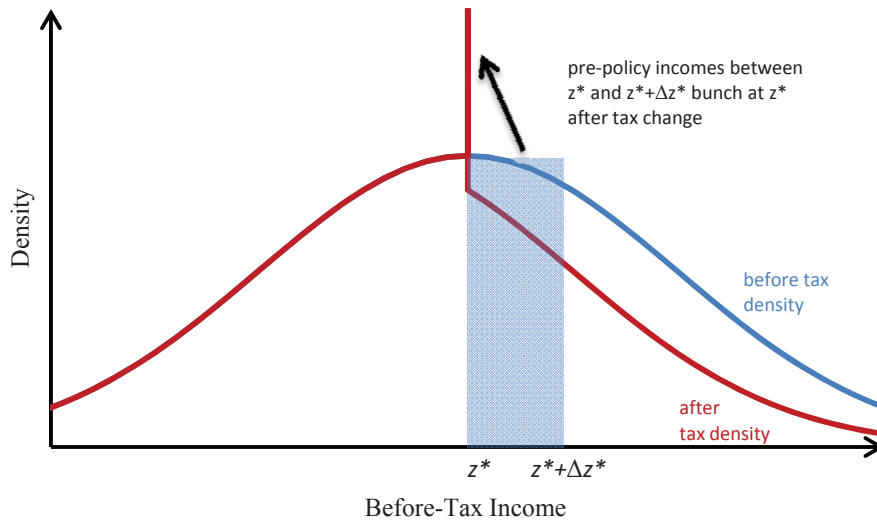


FIGURE 4. Illustration of Bunching at Threshold (z^*) in Simple Utility Maximization Framework

Administrative data are not immune from measurement error. For example, self-employed taxpayers often misreport their income to the IRS.¹¹ The data, however, accurately reflect pre-audit information that taxpayers report to the tax authorities, and the resulting tax liability. Therefore, any behavioral response to the taxation of Social Security benefits should be evident on the tax return.

The sample starts with 112,823 records in 1999, but diminishes to 106,655 by 2008 (see Table 1). We are primarily interested in the subsample of taxpayers age 62 and over, which includes 23,535 individuals in 1999 and 36,530 in 2008. The weighted sample includes 153.6 million individuals in 1999, 28.6 million of whom are age 62 and over. Attrition within the panel is primarily due to death, but taxpayers may also drop out in years in which their income falls below the filing threshold. Because our sample has been supplemented with information returns, particularly earnings from the W-2 and Social Security benefit payments from Form 1099-SSA, we will continue to observe almost all individuals who are not required to file an income tax return. The sample of interest—taxpayers age 62 and over—actually increases over time, a reflection of an aging sample population.

TABLE 1. 1999 SOI Edited Panel Sample Sizes, 1999–2008

Tax Year	Total Sample		Subsample with Primary Taxpayer Age 62 or Over	
	Unweighted	Weighted	Unweighted	Weighted
1999	112,823	153,578,941	23,535	28,574,758
2000	112,804	153,904,818	24,797	29,666,609
2001	112,783	154,187,313	25,990	30,637,473
2002	112,528	154,118,136	27,282	31,720,317
2003	112,058	153,648,715	28,536	32,640,930
2004	111,144	152,282,996	30,269	34,106,473
2005	110,048	150,512,455	31,918	35,426,133
2006	108,946	148,771,365	33,380	36,666,559
2007	107,844	147,034,343	34,740	37,831,748
2008	106,655	145,134,423	36,530	39,309,668

Note: Total sample excludes returns receiving disability payments and those where the primary taxpayer is younger than 23.

¹¹ Based on audit data, only 43 percent of nonfarm proprietor income (i.e., small business income) was voluntarily reported on tax returns in 2001 (Internal Revenue Service 2006).

All told, the panel includes 755,087 observations for married individuals and 352,546 for singles, representing multiple annual observations for most individuals (see Table 2). Applying sample weights, that represents 906.9 million married filers and 606.3 million single filers. Most of the sample is too young to qualify for Social Security benefits (see Table 1); only 21.4 percent of married individuals and 18.6 percent of singles have Social Security benefits.¹²

TABLE 2. Summary Statistics, Pooled Sample: 1999–2008

	Married		Single	
	Unweighted	Weighted	Unweighted	Weighted
Number of Returns	755,087	906.9M	352,546	606.3M
Self-employed (%)	28	19	9.6	7.3
With SSB income (%)	23.5	21.4	20.1	18.6
Social Security Benefit (\$)	24,371	20,489	15,171	13,711
SSB in AGI (\$)	14,802	8,605	5,415	3,036
MAGI (\$)	3,146,938	110,823	1,050,723	37,518
Wage Earners				
Wage income (\$)	508,710	75,881	112,727	27,040
Self-Employed				
Self-employment income (\$)	428,950	37,070	341,050	20,111
Wage income (\$)	1,085,714	65,144	646,428	17,189

VI. Results

Figure 5 reports the distribution of MAGI relative to the first exempt amount calculated using the IRS Panel. A value of -1,000 on the x-axis means \$1,000 below the threshold. Most of the panels are restricted to the sample of taxpayers who have been claiming Social Security benefits for at least 1 year under the logic that it may take time to understand the tax rules. Results are very similar if that restriction is lifted, and also are similar at the second threshold for taxation (see Appendix). Relative MAGI is measured in 2008 dollars. All of the histograms are weighted by population weights; unweighted histograms (not shown) look similar.

To examine bunching evidence statistically, we compare the empirical density, represented by the dots in the scatter plot with smoothed distributions, indicated by the solid line, of MAGI in the vicinity of the threshold in the right panel of each figure. The smoothed distribution is fitted by a quadratic form of MAGI, excluding the observations within \$1,000 of the threshold. The grey band indicates the 95 percent confidence interval, reflecting the underlying variability of the data. The simple empirical test of bunching is whether observations near the threshold fall outside the confidence band (reflecting normal sample variability).

Unlike the histograms for the SSET, EITC, or Danish tax system reported in earlier studies, there is no visual evidence of bunching near the MAGI threshold, indicated by the red line, either for all taxpayers or for the self-employed subsample.

It is possible that married and single taxpayers respond differently to the taxation of benefits. Single taxpayers have an easier optimization problem to solve so this is a cleaner test of the bunching hypothesis. Presumably singles have more control of their own MAGI than individual spouses have in managing joint MAGI. Figure 6 shows the MAGI distribution separately for married and single households. Although there is no evidence of bunching for wage earners, there is a hint of bunching to the left of the threshold for single taxpayers with income from self-employment.

¹² Younger adults may qualify for Social Security disability benefits, but those individuals have been excluded from our sample.

All told, the evidence would seem to allay concerns that taxpayers might be over-reacting to the taxation of Social Security benefits. Responses appear to be modest, at most. There is only weak evidence of response for single taxpayers with self-employment income.

FIGURE 5. MAGI Distribution Around the First Threshold

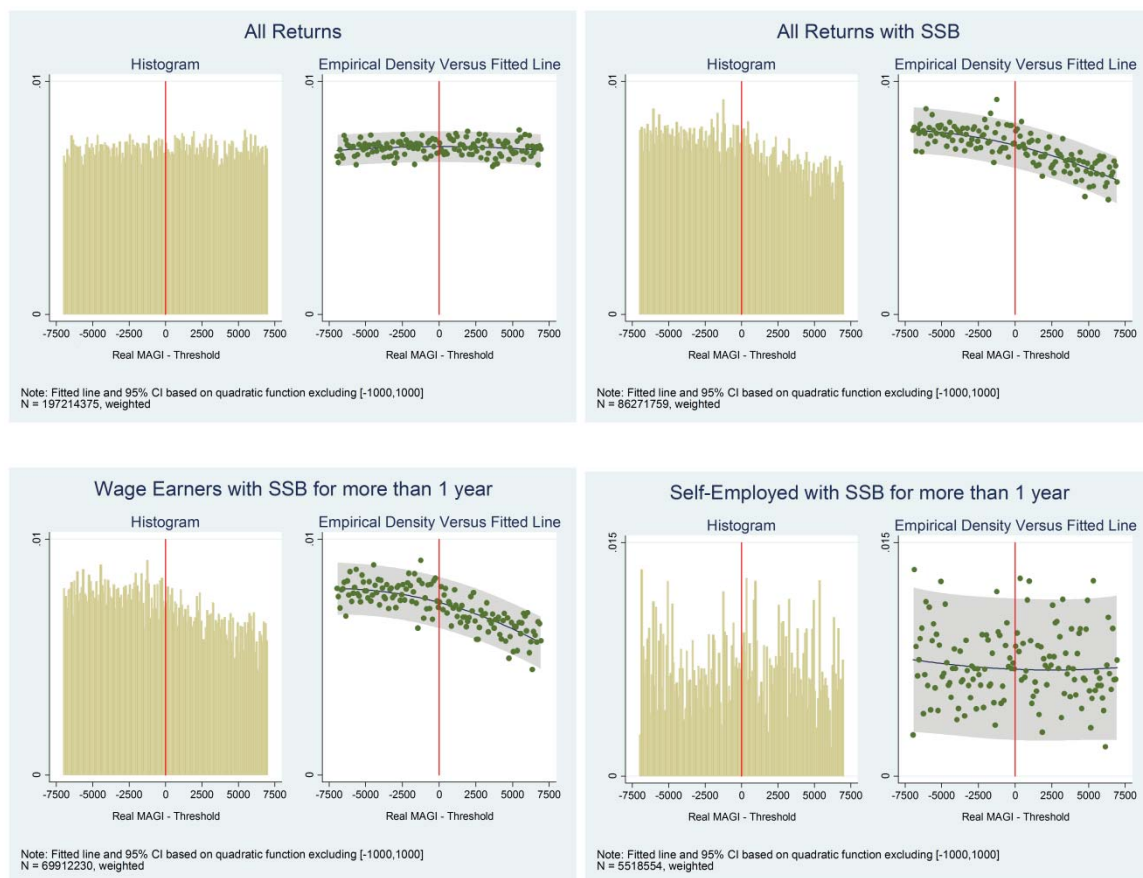
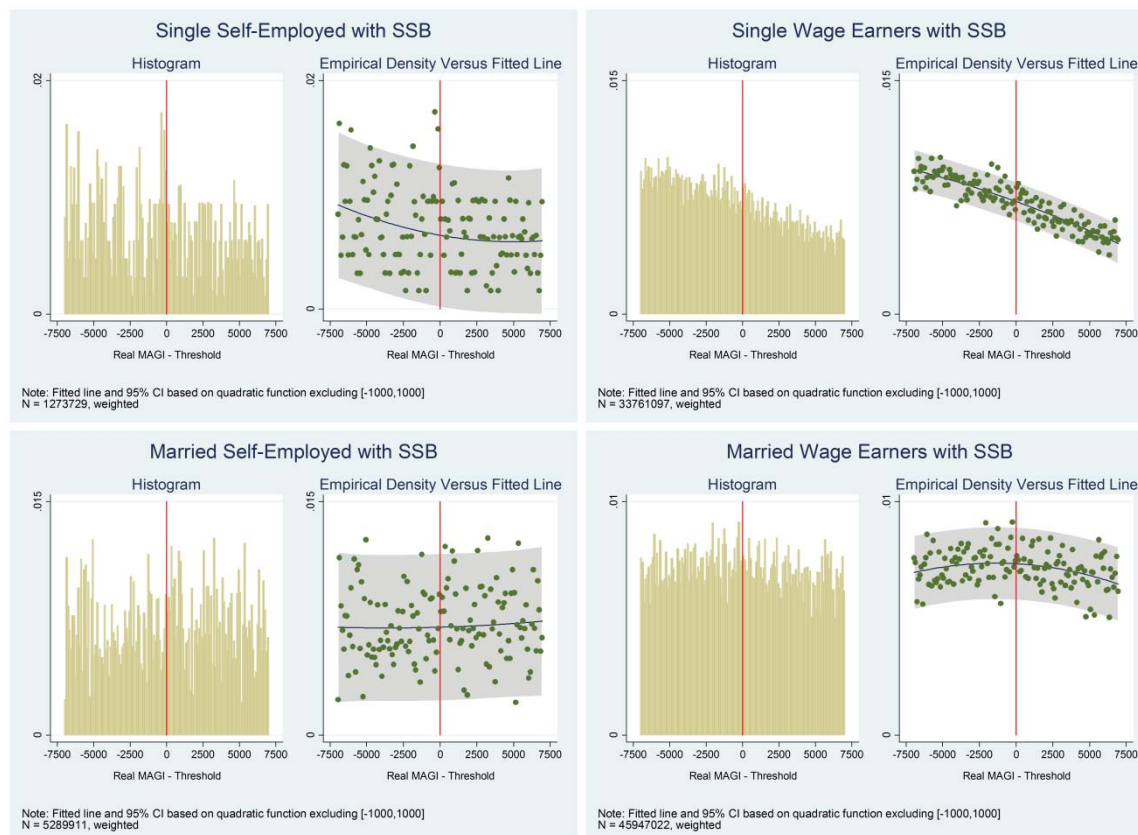


FIGURE 6. MAGI Distribution Around the First Threshold by Marital Status

VII. Conclusion

The taxation of Social Security benefits creates high effective marginal tax rates, which gives older workers an incentive to reduce their labor and nonlabor income below the taxable threshold. However, the tax rules are also quite complex. While in theory taxpayers have an unambiguous incentive to reduce income in the neighborhood of the threshold, the practical effect of these complex incentives is an empirical question. If taxpayers respond to those incentives, there could be significant efficiency costs as well as implications for Social Security's and the nation's finances as older workers would be paying less income and payroll taxes. Moreover, the issue is important as the nation considers tax reform options, which might include changing the way Social Security is taxed.

This study uses administrative data from tax and information returns to examine the distribution of Social Security recipients in the neighborhood of the taxation thresholds. There is little evidence of a response. We examined married and single individuals with and without self-employment income. Only single, self-employed people show any evidence of reducing income to avoid the tax and the response is much smaller and less precisely estimated than the response Saez (2010) found to the kink in the EITC benefit schedule. Overall, the findings suggest that older taxpayers have little understanding of the incentive effects of taxing Social Security.

In future work, we plan to look at how taxation affects labor force participation and the timing of capital gains realizations; capital gains face a much larger proportional rise in tax rates than other income and the timing of capital gains realization is comparatively easy to manipulate. We also plan to look at whether the taxation of benefits affects when individuals first claim Social Security benefits.

APPENDIX

Graphical Examination of Bunching Around the Second Taxation Threshold

This appendix shows graphs of the empirical density of tax returns around the second (higher) threshold at which Social Security benefits are phased into taxable income at an 85 percent rate (increasing marginal effective tax rates by 85 percent). There is no significant evidence of bunching around this threshold for Social Security recipients.

FIGURE A1. MAGI Distribution Around the Second Threshold

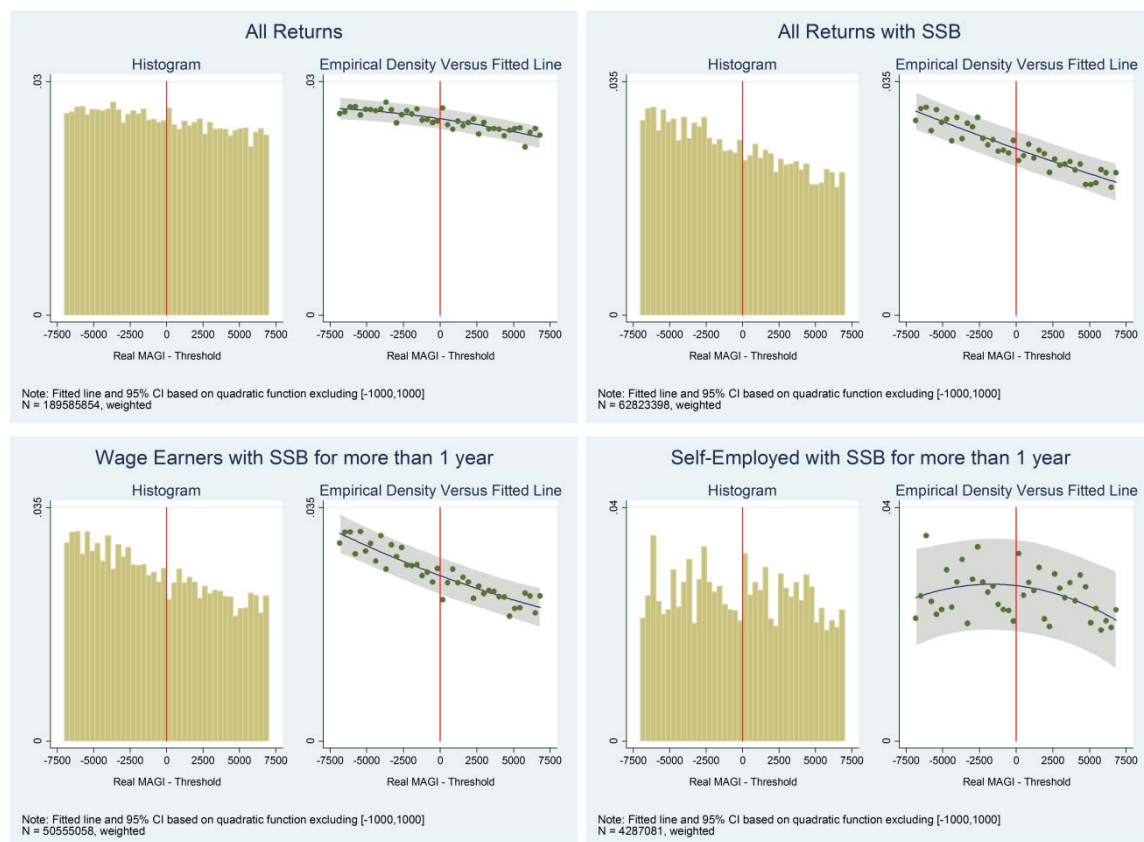
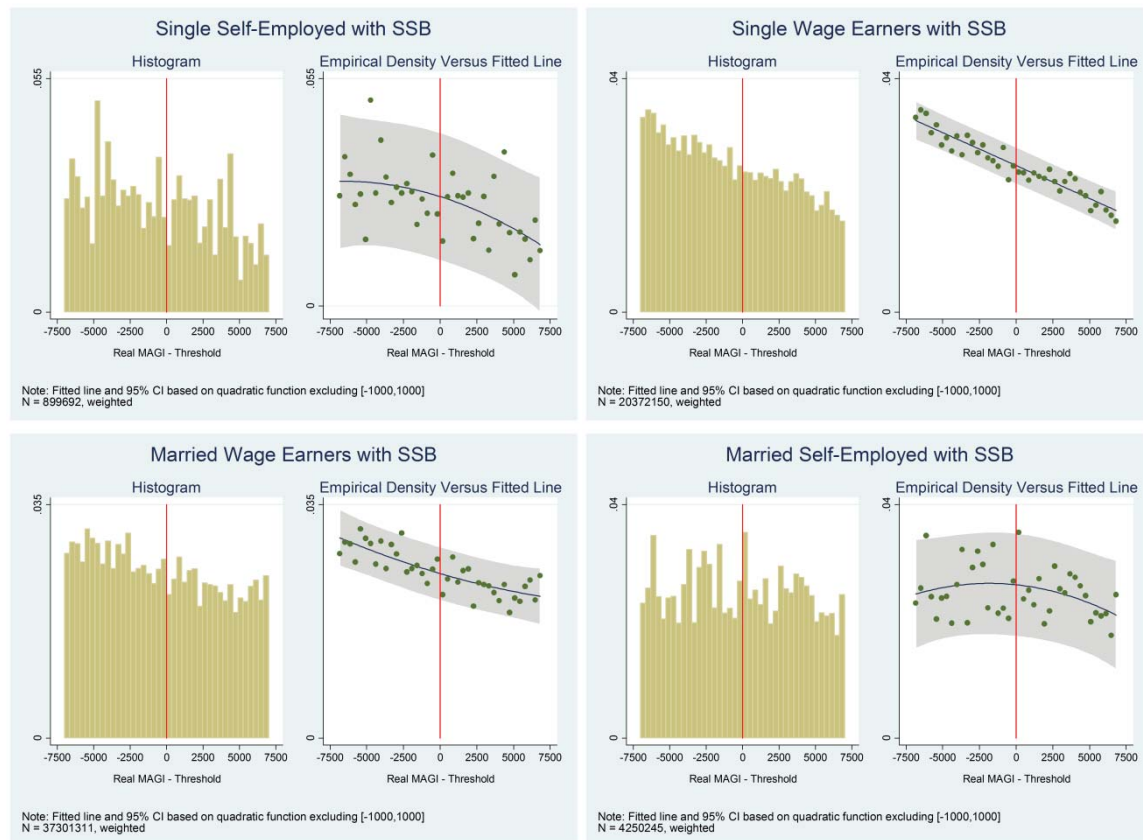


FIGURE A2. MAGI Distribution Around the Second Threshold by Marital Status

References

- Benitez-Silva, Hugo, and Frank Heiland. 2007. "The Social Security Earnings Test and Work Incentives." *Journal of Policy Analysis and Management* 26(3): 527–555.
- Burtless, Gary, and Robert A. Moffitt. 1985. "The Joint Choice of Retirement Age and Post Retirement Hours of Work." *Journal of Labor Economics*. 3:209–236.
- Burman, Leonard E. 1999. *The Labyrinth of Capital Gains Taxation: A Guide for the Perplexed*. Washington, DC: Brookings Institution Press.
- Burman, Leonard; Norma Coe; and Liu Tian. 2011. "Do Older Taxpayers Respond to the Taxation of Social Security Benefits?" Manuscript.
- Chetty, Raj; John N. Friedman; Tore Olsen; and Luigi Pistaferri. 2011. "Adjustment Costs, Firm Responses, and Micro vs. Macro Labor Supply Elasticities: Evidence from Danish Tax Records." *The Quarterly Journal of Economics* 126(2): 749–804.
- Coile, Courtney; Peter Diamond; Jonathan Gruber; and Alain Joustien. 2002. "Delays in Claiming Social Security Benefits." *Journal of Public Economics*, 84(3): 357–385.
- Engelhardt, Gary V., and Anil Kumar. 2009. "The Repeal of the Retirement Earnings Test and the Labor Supply of Older Men." *Journal of Pension Economics and Finance* 8(4): 429–50.
- Friedberg, Leora. 2000. "The Labor Supply Effects of the Social Security Earnings Test." *The Review of Economics and Statistics* 82(1): 48–63.

- Friedberg, Leora, and Anthony Webb. 2009. "New Evidence on the Labor Supply Effects of the Social Security Earnings Test." *Tax Policy and the Economy* 23: 1–35.
- Gruber, Jonathan, and Peter Orszag. 2003. "Does the Social Security Earnings Test Affect Labor Supply and Benefits Receipt?" *National Tax Journal* 56(4):755–773.
- Gustman, Alan L., and Thomas L. Steinmeier. 1985. "The 1983 Social Security Reforms and Labor Supply Adjustments of Older Individuals in the Long Run." *Journal of Labor Economics* 3(2): 237–253.
- Gustman, Alan L., and Thomas L. Steinmeier. 2005. "The Social Security Early Retirement Age in a Structural Model of Retirement and Wealth." *Journal of Public Economics* 89(2-3): 441–463.
- Heider, Steven J., and David S. Loughran. 2008. "The Effect of the Social Security Earnings Test on Male Labor Supply: New Evidence from Survey and Administrative Data." *Journal of Human Resources* 43(1): 57–87.
- Internal Revenue Service. 2006. "IRS Updates Tax Gap Estimates." Available at <http://www.irs.gov/uac/IRS-Updates-Tax-Gap-Estimates>.
- Liebman, Jeffrey. 1997. "The Impact of the EITC on Incentives and Income Distribution." In *Tax Policy and the Economy*, ed. James Poterba, 83–119. Cambridge: MIT Press.
- Liebman, Jeffrey, and Serena Goodman. 2008. "The Taxation of Social Security Benefits as an Approach to Means Testing." Working Paper NB08-02. Cambridge, MA: National Bureau of Economic Research.
- Liebman, Jeffrey B.; Erzo F.P. Luttmer; and David G. Seif. 2009. "Labor Supply Responses to Marginal Social Security Benefits: Evidence from Discontinuities." *Journal of Public Economics* 93(11-12): 1208–1223.
- Liebman, Jeffrey B., and Erzo F. P. Luttmer. 2012. "The Perception of Social Security Incentives for Labor Supply and Retirement: The Median Voter Knows More Than You'd Think," in Jeffrey Brown, ed., *Tax Policy and the Economy*, Volume 26. Cambridge, MA: National Bureau of Economic Research.
- Page, Timothy, and Conway, Karen. 2011. "The Labor Supply Effects of Taxing Social Security Benefits." University of New Hampshire (unpublished manuscript).
- Pierce, Kevin. 2011. "General Description Booklet for the SOI Edited Panel Retirement File." Internal Revenue Service (unpublished manuscript).
- Saez, Emmanuel. 2010. "Do Taxpayers Bunch at Kink Points?" *American Economic Journal: Economic Policy* 2 (August 2010): 180–212.
- Song, Jae, and Joyce Manchester. 2007. "New Evidence on Earnings and Benefit Claims Following Changes in the Retirement Earnings Test in 2000." *Journal of Public Economics* 91(3-4): 669–700.
- Weber, Michael, and Victoria Bryant. 2005. "The 1999 Individual Income Tax Return Edited Panel," 2005 *Proceedings of the American Statistical Association*, Social Statistics Section, Government Statistics Section, American Statistical Association.